

From the INTERNATIONAL BUREAU

**PCT**

**NOTIFICATION OF ELECTION**

(PCT Rule 61.2)

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 06 March 2001 (06.03.01)	
<b>International application No.</b> PCT/EP00/06016	<b>Applicant's or agent's file reference</b> SJW/7096-PCT
<b>International filing date</b> (day/month/year) 28 June 2000 (28.06.00)	<b>Priority date</b> (day/month/year) 08 July 1999 (08.07.99)
<b>Applicant</b> GONZE, Michel, Henri, André et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

13 January 2001 (13.01.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b> R. E. Stoffel
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:											
WILKINSON, Stephen John STEVENS HEWLETT & PERKINS 1 St. Augustine's Place Bristol BS1 4UD GRANDE BRETAGNE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 5px;">                     STEVENS HEWLETT &amp; PERKINS BRISTOL                 </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 10px;"> <div style="font-size: 1.2em; font-weight: bold;">2 2 OCT 2001</div> </td> </tr> <tr> <td style="width: 30%; padding: 5px;">DIA</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">FILE</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">No.</td> <td style="padding: 5px;"></td> </tr> </table>	STEVENS HEWLETT & PERKINS BRISTOL		<div style="font-size: 1.2em; font-weight: bold;">2 2 OCT 2001</div>		DIA		FILE		No.	
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No.											

## PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Applicant's or agent's file reference SJW/7096-PCT		<b>IMPORTANT NOTIFICATION</b>
International application No. PCT/EP00/06016	International filing date (day/month/year) 28/06/2000	Priority date (day/month/year) 08/07/1999
Applicant CERESTAR HOLDING B.V. et al.		

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Riebel, O  Tel. +49 89 2399-2967
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>SJW/7096-PCT</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/EP00/06016</b>	International filing date (day/month/year) <b>28/06/2000</b>	Priority date (day/month/year) <b>08/07/1999</b>
International Patent Classification (IPC) or national classification and IPC <b>A23G3/00</b>		
Applicant <b>CERESTAR HOLDING B.V. et al.</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  <b>13/01/2001</b>	Date of completion of this report  <b>18.10.2001</b>
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office</b> <b>D-80298 Munich</b> <b>Tel. +49 89 2399 - 0 Tx: 523656 epmu d</b> <b>Fax: +49 89 2399 - 4465</b>	Authorized officer  <b>Weber, G</b>  Telephone No. <b>+49 89 2399 8656</b> <div style="text-align: right;">  </div>

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/06016

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-20 as originally filed

**Claims, No.:**

1-8 as received on 03/05/2001 with letter of 30/04/2001

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/06016

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes: Claims 1-8
	No: Claims
Inventive step (IS)	Yes: Claims 1-8
	No: Claims
Industrial applicability (IA)	Yes: Claims 1-8
	No: Claims

### 2. Citations and explanations see separate sheet

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:  
see separate sheet

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/EP00/06016

ad V:

The subject-matter of the amended claims 1 to 8 can be regarded as meeting the requirements of Articles 33(2) and 33(3) PCT.

In particular the feature "c)" of claim 1 (which is also present in independent claim 5) has not been made available in the context of the other features of the amended claims in anyone of the available prior art documents.

That the claimed specific combination of ingredients provides the possibility of producing non-sticky, non-hygroscopic and non cariogenic hard candies cannot be regarded as being rendered obvious by the available prior art.

ad V:

The description should preferably be brought into line with the amended set of claims (Article 6 PCT).

CLAIMS

1. A syrup (1) having a dry substance of from 60 to 80% consisting of a mixture of hydrogenated starch hydrolysate syrup (2) and isomalt powder or isomalt syrup (3) characterised in that:
  - a) the dry substance of the syrup (1) consists of from 14 to 25% w/w hydrogenated starch hydrolysate syrup (2) (dry substance) wherein the dry substance of said hydrogenated starch hydrolysate syrup (2) comprises between 22 and 55% w/w higher polyols, and
  - b) the dry substance of the syrup (1) consists of from 75 to 86% w/w isomalt, and
  - c) the dry substance of the syrup (1) consists of:
    - 7 to 52% w/w 6-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,6 GPS)
    - 24.5 to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-mannitol (1,1 GPM)
    - 0 to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,1 GPS)
    - 0 to 1.3% w/w sorbitol (DP<sub>1</sub>)
    - 2.8 to 13.8% w/w maltitol (DP<sub>2</sub>)
    - 1.5 to 4.2% w/w maltotriitol (DP<sub>3</sub>)
    - 3.0 to 13.5% w/w higher polyols (DP<sub>n</sub>)
2. A syrup according to claim 1 characterised in that said syrup has a dry substance of 70%.
3. A sugar-free non-cariogenic hard candy comprising a syrup according to claims 1 or 2.
4. A sugar-free non-cariogenic hard candy according to claim 3 characterised in that the mass viscosity is at least 25,000 mPa.s, and that the candy surface stickiness is below 180g (50% RH, 22-23°C) and the moisture pick-up (hygroscopicity at 70% RH and 25°C) after 14 days is below 1.5%.

5. A process for the production of a sugar-free non-cariogenic hard candy comprising the following steps:
  - a) preparing a syrup (1) having a dry substance of from 60 to 80% consisting of a mixture of hydrogenated starch hydrolysate syrup (2) and isomalt powder or isomalt syrup (3) characterised in that the dry substance of the syrup (1) consists of from 14 to 25% w/w hydrogenated starch hydrolysate syrup (2) (dry substance) wherein the dry substance of said hydrogenated starch hydrolysate syrup (2) comprises between 22 and 55% w/w higher polyols, and the dry substance of the syrup (1) consists of from 75 to 86% w/w isomalt, and the dry substance of the syrup (1) consists of 7 to 52% w/w 6-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,6 GPS), 24.5 to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-mannitol (1,1 GPM), 0 to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,1 GPS), 0 to 1.3% w/w sorbitol (DP<sub>1</sub>), 2.8 to 13.8% w/w maltitol (DP<sub>2</sub>), 1.5 to 4.2% w/w maltotriitol (DP<sub>3</sub>), 3.0 to 13.5% w/w higher polyols (DP<sub>n</sub>),
  - b) cooking at a temperature between 145 and 170°C and low vacuum, and
  - c) shaping according to stamping or deposit method.
6. A process according to claim 5 characterised in that flavour and/or colouring matter is added during shaping.
7. A process according to claims 5 or 6 characterised in that the syrup comprises between 10 to 35% by weight water.
8. A process according to any one of claims 5 to 7 characterised in that the water content of the hard candy is less than 4% by weight, preferably less than 2% by weight or less, based upon the weight of the hard candy.

AMENDED SHEET

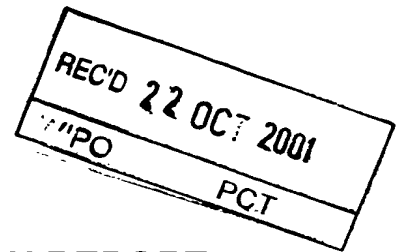


# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



14

Applicant's or agent's file reference SJW/7096-PCT		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/06016	International filing date (day/month/year) 28/06/2000	Priority date (day/month/year) 08/07/1999	
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Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Weber, G  Telephone No. +49 89 2399 8656



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/06016

**I. Basis of the report**

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# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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6. Additional observations, if necessary:

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims	1-8
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-8
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-8
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

ad V:

The subject-matter of the amended claims 1 to 8 can be regarded as meeting the requirements of Articles 33(2) and 33(3) PCT.

In particular the feature "c)" of claim 1 (which is also present in independent claim 5) has not been made available in the context of the other features of the amended claims in anyone of the available prior art documents.

That the claimed specific combination of ingredients provides the possibility of producing non-sticky, non-hygroscopic and non cariogenic hard candies cannot be regarded as being rendered obvious by the available prior art.

ad VII :

The description should preferably be brought into line with the amended set of claims (Article 6 PCT).

Replaces  
by art. 34  
Amendment

Claims

1. A syrup at dry substance between 60% to 80%, preferably at dry substance of about 70% consisting of a mixture of hydrogenated starch hydrolysate syrup and isomalt powder or isomalt syrup characterised in that the dry substance of the syrup comprises 86% w/w isomalt, preferably between 85% w/w and 79% w/w isomalt, more preferably 75% w/w isomalt, and the dry substance of the hydrogenated starch hydrolysate syrup comprises between 22% w/w and 55% w/w higher polyols, preferably between 25% w/w and 50% w/w higher polyols.
2. A syrup according to claim 1 characterised in that the dry base of the syrup consists of between:
  - 7 % w/w to 52% w/w 6-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,6 GPS),
  - 24.5% w/w to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-mannitol (1,1 GPM),
  - 0% w/w to 52% w/w 1-O- $\alpha$ -D-glucopyranosyl-D-sorbitol (1,1 GPS),
  - 0% w/w to 1.3% w/w sorbitol (DP<sub>1</sub>),
  - 2.8% w/w to 13.8% w/w maltitol (DP<sub>2</sub>),
  - 1.5% w/w to 4.2% w/w maltotriitol (DP<sub>3</sub>),
  - 3.0% w/w to 13.5% w/w higher polyols (DP<sub>n</sub>).
3. A sugar-free non-cariogenic hard candy comprising a syrup according to claim 1 or 2.
4. A sugar-free non-cariogenic hard candy according to claim 3 characterised in that the mass viscosity is at least 25,000 mPa.s, and that the candy surface stickiness is below 180 g (50% RH, 22-23°C) and the moisture pick-up (hygroscopicity at 70% R.H and 25°C) after 14 days is below 1.5%.
5. A process for the production of a sugar-free non-cariogenic hard candy comprising the following steps:
  - a) preparing a syrup at dry substance between 60% to 80% consisting of a mixture of hydrogenated starch hydrolysate syrup and isomalt powder or

isomalt syrup characterised in that the dry substance of the syrup comprises 86% w/w isomalt, preferably between 85% w/w and 79% w/w isomalt, more preferably 75% w/w isomalt, and the dry substance of the hydrogenated starch hydrolysate syrup comprises between 22% w/w and 55% w/w higher polyols, preferably between 25% w/w and 50% w/w higher polyols,

- b) cooking at a temperature between 145°C and 170°C and low vacuum, and
- c) shaping according to stamping or deposit method.

6. A process according to claim 5 characterised in that flavour and/or colouring matter is added during shaping.
7. A process according to claim 5 or 6 characterised in that the syrup comprises between 10 to 35% by weight water.
8. A process according to anyone of claims 5 to 7 characterised in that the water content of the hard candy is less than 4% by weight, preferably less than 2% by weight or less, based upon the weight of the hard candy.